

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/572,668
Applicant: Daniele FAUROUX
Filed Internationally: September 27, 2006
Title: METHOD AND INSTALLATION FOR PRODUCING CARBON
MONOXIDE BY CRYOGENIC DISTILLATION
TC/A.U.: 1621
Examiner: Jafar F. PARSA
Docket No.: Serie 6373
Customer No.: 000040582

REPLY TO EXAMINER'S ANSWER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please consider the following in response to the Examiner's Answer dated
October 28, 2008.

REMARKS

Applicants thank the Examiner for the Appeal Brief Answer of October 28, 2008. This Reply is in full response thereto. Thus, Applicants respectfully request a favourable decision of this Appeal.

Response to Examiner's Answer:

The Examiner notes that there are differences with respect to location of withdrawing carbon monoxide-rich stream and carbon dioxide, as argued by Appellants. However, the Examiner states that these differences are not patentably distinct in the absence of unexpected results.

As stated in KSR, "when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result."

In this situation, the prior art is not "altered by the mere substitution of one element for another". It is well known to the skilled artisan that a multiple distillation column system, such as disclosed by Fabian, will produce streams of higher purity products than a single distillation column with an intermediate withdrawal, such as in the instant application. It is a fallacy to simply state that one may be substituted for the other.

For example, in the instant application, the carbon monoxide-rich stream 29 is indicated to have a purity of 98.5% CO, less than 1% argon, and less than 0.01 ppm methane, and 0.4% nitrogen (*paragraph 0033*). In contrast, the equivalent highly pure carbon monoxide stream 16 in Fabian, is indicated to have a purity of 99.9% CO, and an indicated 0% hydrogen, 0% methane, and 0% nitrogen. One skilled in the art of process design, would recognize that the precision of the numbers disclosed in the table in Fabian is intentionally low, and in reality such a multiple column system would in reality produce much higher purity carbon monoxide.

Thus, as Appellants have argued, one skilled in the art would not find it obvious at all to take a double distillation column arrangement (such as in Fabian), which had clearly been designed as such in order to produce three product streams of substantially high purity, and reduce it to a single distillation column (such as in the instant application), which will not produce three product streams of substantially high purity, simply based on capital expenditure considerations.

The Examiner is demanding unexpected results from what he argues are functionally identical apparatuses, while the Appellants are providing what are clearly functionally dissimilar apparatuses that provide expectedly dissimilar results.

CONCLUSION

It is not believed that any fee is due at this time. If that belief is incorrect, please debit deposit account number 01-1375. Also, the Commissioner is authorized to credit any overpayment to deposit account number 01-1375.

Respectfully submitted,

/Elwood L. Haynes/
Elwood L. Haynes
Registration No. 55,254

Date: **December 15, 2008**

Air Liquide
2700 Post Oak Blvd., Suite 1800
Houston, Texas 77056
Phone: (713) 624-8952
Fax: (713) 624-8950